

# LAKE TROUT

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**FRAGILE**

"The lake trout faces  
a bleak future."

"There are ominous signs  
that lake trout are  
in jeopardy."

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Ministry of  
Natural  
Resources

Hon. Alan W. Pope  
Minister  
W.T. Foster  
Deputy Minister

## THE SIGNS:

Lake trout have disappeared from nearly 100 lakes in Ontario during the last 30 years!

Only half of the remainder of Ontario's lake trout lakes are in good condition!

Lake trout populations are declining!

Many of Ontario's lake trout fisheries are becoming more and more dependent on hatchery-reared fish!

## WHY?

Lake trout are fragile fish, unable to withstand the stresses imposed by man and his technology.

## WHY ARE LAKE TROUT FRAGILE?

They have very specific habitat requirements: deep, cold, clear lakes with high oxygen levels and little plant growth. Consequently, lake trout only inhabit 2100 of the more than 250,000 lakes in the province.

Lake trout are slow-growing and do not mature for about 6 to 8 years.

Mature females may not spawn every year, particularly in northern lakes where there is a short growing season and alternate year spawning is more typical.

The number of eggs produced is low.

Lake trout eggs develop during the winter and thus require 4 to 6 months to hatch.

The number of lake trout inhabiting a lake is never high.

Lake trout are not able to adapt to drastic changes in their environment.

## WHAT STRESSES HAS MAN IMPOSED ON LAKE TROUT?

### I Overfishing

### II Habitat Destruction

### III Introduction of Exotic Species

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### I Overfishing

#### THE SIGNS:

It now takes longer to catch a lake trout than it used to.

The fish caught are smaller and an increasing number of immature fish are being taken.

#### THE CAUSES:

Lake trout are highly vulnerable to angling.

Most lakes can only withstand an annual lake trout harvest of 0.25 to 0.75 kilograms per hectare — in some lakes, 2 to 4 years of trout production have been angled in one day.

The number of anglers has steadily increased — in some lakes by 300% in just over 5 years.

More lakes have become accessible to anglers due to an ever-expanding network of roads and an increase in the popularity of the snowmobile and fly-in fishing services.

Fishing gear has improved: downriggers, depth sounders, temperature and oxygen probes are being used in increasing numbers to locate lake trout.

## **II Habitat Destruction**

### **LAKESHORE DEVELOPMENT:**

Many lake trout lakes are surrounded by cottages, urban centres and farms which results in the flow of domestic, industrial and agricultural waste into the lakes. As a result, spawning beds have become covered in algae and lake oxygen levels have decreased.

The removal of shoreline and aquatic vegetation has increased erosion, resulting in the siltation of spawning beds and a decrease in water clarity.

Fertilizers, pesticides and industrial chemicals can have deleterious effects on fish populations.

### **DAMS:**

Dams can increase water temperatures and sedimentation.

Fluctuating water levels can result in the drowning or exposing of spawning beds.

### **INDUSTRY:**

Sunken wood products from sawmills have covered spawning beds and changed the aquatic habitat of lakes.

Construction adjacent to lakes, streams and rivers can cause siltation.

Acid rain is a threat to lake trout habitat throughout the Canadian Shield.

## **III Introduction of Exotic Species**

The inadvertent introduction of exotic species (e.g. lamprey, alewives and smelt) has increased stress on native lake trout populations as a result of predation and competition for food and space.

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### **THE DECLINE OF OUR LAKE TROUT CAN BE REVERSED!**

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#### **HOW?**

- By protecting existing lake trout stocks.
- By strictly regulating fishing.
- By re-establishing naturally reproducing lake trout populations.
- By rehabilitating habitat, especially spawning beds.
- By curtailing pollution, on both a local and international scale.
- By limiting development around lake trout lakes.
- By controlling access to lakes, and thus the harvest of lake trout.
- By increasing public awareness of the fragility of this resource.

The rehabilitation of Ontario's Lake Trout resource is possible, but it will require time, self-sacrifice and the co-operation of everyone.

For further information on the lake trout in Ontario, please contact your local Ministry of Natural Resources District Office:

ATIKOKAN	(807) 597-6971	NORTH BAY	(705) 474-5550
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MINDEN	(705) 286-1521		
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NIAGARA	(416) 892-2656		
NIPIGON	(807) 887-2120		



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